

What Is Claimed Is:

5 1. A radio data communication apparatus, comprising:
 a radio portable terminal including a portable terminal
 section for deciding a notification condition of a circuit state
 based on information of power supplied to said radio portable
 terminal and issuing a notification of the notification
 condition, and a portable radio section for receiving the
 notification of the notification condition and notifying said
 portable terminal section of the circuit state when the circuit
10 state satisfies the notification condition received from said
 portable terminal section;

 said radio portable terminal being operable to connect
 a radio circuit based on the circuit state of the notification
 received from said portable radio section to transmit and receive
15 data to and from a server over a radio communication network,
 a public network and a wire communication network.

20 2. A radio data communication apparatus as claimed in
 claim 1, wherein said portable terminal section includes means
 for notifying said portable radio section of the power supply
 information supplied to said portable terminal section, and
 said portable radio section includes means for deciding a
 notification condition of the circuit state based on the power
 supply information of the notification received and notifying
 said portable terminal section of the circuit state when the
25 circuit state satisfies the notification condition.

 3. A radio data communication apparatus as claimed in

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claim 1, wherein said portable terminal section includes means for notifying said portable radio section of the information of the power supply supplied to said portable terminal section, and said portable radio section includes means for determining
5 a notification condition of the circuit state based on the power supply information of the notification received and connecting a circuit when the circuit state satisfies the notification condition.

4. A radio data communication apparatus as claimed in
10 claim 1, wherein the power supply information includes power supply type information which is information indicative of whether the power supply being supplied is an ac power supply or a battery, and information indicative of a battery remaining amount where the power supply is a battery.

5. A radio data communication apparatus as claimed in
15 claim 1, wherein the circuit state includes at least one of a reception electric field strength which is a strength of radio waves received from a radio base station by said portable radio section, and a state of a circuit indicated by an error rate
20 of control data received from the radio base station by said portable radio section.

6. A radio data communication apparatus as claimed in
claim 1, wherein said portable terminal section includes means
25 for determining a notification condition of the circuit state based on an operation state of a CPU of said portable terminal section and notifying said portable radio section of the

notification condition, and said portable radio section includes means for notifying said portable terminal section of the circuit state when the circuit state satisfies the condition received from said portable terminal section.

5 7. A radio data communication apparatus as claimed in claim 1, wherein said portable terminal section includes means for notifying said portable radio section of an operation state of a CPU of said portable terminal section, and said portable radio section includes means for deciding a notification
10 condition of the circuit state based on the operation state of said CPU of the notification received and notifying said portable terminal section of the circuit state when the circuit state satisfies the notification condition.

15 8. A radio data communication apparatus as claimed in claim 1, wherein said portable terminal section includes means for notifying said portable radio section of an operation state of a CPU of said portable terminal section, and said portable radio section includes means for deciding a notification
20 condition of the circuit state based on the operation state of said CPU of the notification received and connecting a circuit when the circuit state satisfies the notification condition.

25 9. A radio data communication apparatus as claimed in claim 6, wherein the operation state of said CPU includes information representative of operation states wherein a processing speed of said CPU and/or an amount of power consumption of the power supply are different.

10. A radio data communication method, comprising:
a portable terminal step performed by a radio portable terminal for deciding a notification condition of a circuit state based on information of power supply supplied to said radio portable terminal and issuing a notification of the notification condition;

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10 a portable radio step performed by said radio portable terminal for receiving the notification of the notification condition and notifying the portable terminal step of the circuit state when the circuit state satisfies the condition received from the portable terminal step; and

15 a connection step performed by said radio portable terminal of connecting a radio circuit based on the circuit condition of the notification received from the portable radio step to transmit and receive data to and from a server over a radio communication network, a public network and a wire communication network.

20 11. A radio data communication method as claimed in claim 10, wherein the portable terminal step includes a step of notifying the portable radio step of the power supply information supplied to the portable terminal step, and the portable radio step includes a step of deciding a notification condition of the circuit state based on the power supply information of the notification received and notifying the portable terminal step
25 of the circuit state when the circuit state satisfies the condition.

12. A radio data communication method as claimed in claim 10, wherein the portable terminal step includes a step of notifying the portable radio step of the information of the power supplied to the portable terminal step, and the portable radio step includes a step of determining a notification condition of the circuit state based on the power supply information of the notification received and connecting a circuit when the circuit state satisfies the condition.

13. A radio data communication method as claimed in claim 10, wherein the power supply information includes power supply type information which is information indicative of whether the power supply being supplied is ac power supply or a battery, and information indicative of a battery remaining amount where the power supply is a battery.

14. A radio data communication method as claimed in claim 10, wherein the circuit state includes at least one of a reception electric field strength which is a strength of radio waves received from a radio base station by the portable radio step, and a state of a circuit indicated by an error rate of control data received from the radio base station by the portable radio step.

15. A radio data communication method as claimed in claim 10, wherein the portable terminal step includes a step of determining a notification condition of the circuit state based on an operation state of a CPU of the portable terminal step and notifying the portable radio step of the notification

condition, and the portable radio step includes a step of notifying the portable terminal step of the circuit state when the circuit state satisfies the condition received from the portable terminal step.

5 16. A radio data communication method as claimed in claim 10, wherein the portable terminal step includes a step of notifying the portable radio step of an operation state of a CPU of the portable terminal step, and the portable radio step includes a step of deciding a notification condition of the
10 circuit state based on the operation state of said CPU of the notification received and notifying the portable terminal step of the circuit state when the circuit state satisfies the condition.

 17. A radio data communication method as claimed in claim
15 10, wherein the portable terminal step includes a step of notifying the portable radio step of an operation state of a CPU of the portable terminal step, and the portable radio step includes a step of deciding a notification condition of the circuit state based on the operation state of said CPU of the
20 notification received and connecting a circuit when the circuit state satisfies the condition.

 18. A radio data communication method as claimed in claim
25 15, wherein the operation state of said CPU includes information representative of operation states wherein a processing speed of said CPU and/or an amount of power consumption of the power.